

Remarks/Arguments:

Claims 1-33 are pending in the application, and claims 21-27 are withdrawn from consideration. Claim 1 is amended herewith to state that the substrate is biaxially oriented. Basis for this amendment can be found at page 3, lines 26 to 27 and page 7, lines 4 to 6 of the application as originally filed.

Claims 1-20 and 30-33 are rejected under 35 USC § 103(a) as unpatentable over WO 01/92000 A1 ("Lin") in view of U.S. 4,515,841 ("Dyke").

The Examiner considers that it would have been obvious to use a water soluble material such as taught by Dyke for Lin's sealing layer 16. Applicants have explained, in their previous response, that water soluble materials would be unsuitable for purposes of Lin's invention because a water soluble material cannot be water repellent and cannot provide resealability, both of which features are essential to Lin's invention. The Examiner admits that Lin does not explicitly teach the use of a water soluble material for layer 16. The Examiner also does not dispute that making layer 16 from a water soluble material would make water repellency and resealability unachievable, but states that these features are not in fact essential to Lin's invention. Lin, however, very clearly indicates that they are. Please see the several footnoted citations to Lin, establishing this fact beyond question.¹ Applicants also presented these citations in their previous response, and the Examiner has not explained how these passages are consistent with the proposition that water repellency and resealability are optional in Lin's view.

The Examiner states that "The essential feature of Lin is that the sealing film and substrate vent when exposed to steam during cooking."² For the sake of a clear record, it should be noted that Lin does not teach that steam exposure causes venting. Rather, she teaches that increases in pressure and temperature are the cause.³ Venting involved "... a thermal process that is used to melt the sealing layer 16 ...", and "when the heating source

¹ Regarding resealability, see Lin page 11 lines 23-25, page 14 lines 29-33, page 15 line 27 to page 16 line 7, and claim 1. Regarding water repelling or waterproofing, see page 4 lines 11-12, page 5 line 2, page 10 line 30, page 11 line 1, and page 12 line 6. Note correction to the last citation, which previously erroneously cited page 18 lines 1-2. Applicants apologize for the error.

² Office Action page 4 at point 5.

³ Lin page 11 lines 16-23

is removed, the temperature ... decreases and the sealing layer 16 regains its sealing abilities.”⁴

In any case, and leaving this inaccuracy aside, the Examiner’s main assertion seems to be that because venting during microwave cooking is an essential function of Lin’s structure, there can be no other essential features. This is incorrect. There can be more than one essential feature, and Lin makes it very clear that water repellency and resealability are also essential.

The Examiner admits that Lin does not explicitly teach water soluble materials for layer 16, but proposes the following indirect proof that this feature is implied.

- 1) Some members of the general classes of materials that Lin uses for layer 16 are not “water resistant”⁵ (a term that neither Lin nor the Examiner defines).
- 2) Therefore water resistance is merely optional for Lin’s purposes.
- 3) Therefore Lin’s layer 16 must sometimes be water soluble.

Applicants respectfully point out that this logic is flawed. To begin with, Applicants’ claims recite a water soluble layer, not a water resistant layer, and therefore any remarks regarding the latter are not relevant to the claims under examination.

Secondly, point 2) does not follow from point 1) for at least the reason that Lin has clearly stated that layer 16 is water repellent. Although Lin discloses certain classes of compounds from which the material of layer 16 can be selected, he does not state that all compounds from those classes are suitable, and the skilled artisan easily understands that the materials for layer 16 must meet the other requirements of the invention. One of those explicitly required features is water repellency, as explained earlier above, and the skilled person would have selected water repellent materials from the list provided. Water repellency is a necessary property, not optional as the Examiner asserts, and a water soluble material as currently claimed cannot meet this water repellency requirement. Therefore, using a water soluble material for layer 16 would have rendered Lin’s invention

⁴ Lin page 11 lines 23-25

⁵ Office Action page 4 point 5: “... all of the materials [starch, fatty acids and surfactants] would be known to one of ordinary skill in the art as not always being water resistant.” Applicants presume that the Examiner is referring to water repellency, which Lin does mention repeatedly as discussed above.

unsatisfactory for its intended purpose, and thus substituting a water soluble layer for Lin's water repellent layer would not have been obvious⁶.

It should also be noted that it is immediately clear, by simple inspection of the other cited reference (Dyke), that the mere ability to vent is not sufficient to Lin's purpose. Dyke (which predates Lin by sixteen years) describes the concept of a sealing film which vents when exposed to steam. Given that such a concept was already known, the essential elements of Lin must be more specific than those set out by the Examiner. And as shown above, those specific elements include features that preclude the use of a water soluble layer 16.

Another essential feature of Lin's invention is that it is reusable. The Examiner considers this to be optional. However, adopting this view is entirely inconsistent with claim 1 of Lin (which surely recites essential features) which states that "when the heating source is removed, the temperature of the composite film decreases and the sealing ability of the sealing layer is restored" (emphasis added). Further proof that reusability is a requirement is made at page 11, lines 23 to 25; page 14, lines 29 to 33; page 15, lines 27 to 31 and page 16, lines 6 to 7. Hence, to argue that this feature is not essential to Lin is not consistent with Lin's own disclosure. Modifying Lin's device to use a water-soluble layer 16 would result in loss of this feature because the sealing ability of layer 16 would not be restored upon cooling as required. Use of such a layer would therefore render Lin's packaging unsuitable for its intended purpose. Destroying a feature that is essential for the intended purpose a prior art invention is never obvious in view of that prior art, and so the rejection should be withdrawn for this additional reason.

Claims 1-20 and 30-33 are rejected under 35 USC § 103(a) as unpatentable over Kyou et al., JP-U 04041873, PTO Translation 10-3740 ("Kyou"). Applicants provide herewith a certified translation of this application, and note for sake of a clear record that although the PTO's translation of this document indicates Kourjirou Kyou et al. as inventors, no inventor of that name appears on the certified translation provided by Applicants. Nonetheless, Applicants will refer to this reference as "Kyou" to be consistent with the Examiner's nomenclature.

⁶ If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)

Applicants note at the outset that the Office Action is incomplete in its rejection over Kyou, as it rejects claims 2, 9-20 and 31-33 without addressing the features recited in those claims. Since the Office Action does not point out why the person of skill would have been motivated to provide the features recited in these claims, a *prima facie* case of obviousness has not been presented and they should be allowed. Alternatively, if the Examiner believes that there are legitimate reasons for rejecting these claims, they should be set forth in an Office Action. Such Action must be nonfinal inasmuch as it would provide bases for rejection to which Applicants have not had an opportunity to respond.

Turning now to claim 1, the Office Action indicates that Kyou teaches all of the features of claim 1 and its dependents, including use of a perforated film layer at element 13. Applicants respectfully submit that the PTO translation errs in this description of element 13, which is described as an "air permeable sheet"⁷. Kyou indicates that the air permeable sheet 13 may be identical to the fiber paper 11, or may be a porous film, and air permeable sheet 13 must possess an air permeance equivalent to or greater than the air permeance of the fiber paper 11.⁸ In contrast, the present claims recite a biaxially oriented polymeric substrate with one or more venting means. Thus, Kyou does not teach all of the features of claim 1 and its dependents.

It should also be noted that Kyou operates in a different way from that of the present invention, and accordingly cannot be considered to render the claimed subject matter obvious. More specifically, Kyou describes a cover for microwave food packaging which comprises a multi-layer sheet composed of an air-permeable sheet (13), a resin barrier layer (12) and a fiber paper (11). In use, upon heating the food product, steam is generated, which causes the barrier layer (12) to change form and allow communication between the top and bottom layers. In this regard, the barrier layer is either water-soluble or melts on contact with steam heat. Air can then escape through the pores which are present in the fiber layer.

In contrast, the film according to claim 1 is composed of a polymeric substrate layer which is a biaxially oriented film or sheet. In the present invention, a water-soluble barrier layer is exposed to steam heat via perforations (or incisions) in the biaxially oriented substrate. Thus, the portions of the barrier layer which can become steam actuated are

⁷ Certified translation page 2 lines 15-16

⁸ Certified translation page 8 lines 27-39

pre-determined by the design (e.g., size, shape and position) of the venting means. This allows for full design and control over which parts of the water soluble barrier layer the steam impinges, with the result that the film does not fail during the microwave cooking process. The fact that this is possible is substantiated in the examples included in the application as filed by reporting the time required for film failure. In contrast, the design of the packaging of Kyou is such that the barrier layer is exposed randomly across its whole surface.

When faced with the problem of providing a film for packaging microwave products which allows for greater control of the release of steam and hence reduced film failure, the solution as presented in claim 1 would not have been obvious over Kyou. In this regard, Kyou is clear in that the release of steam should be controlled by the natural permeability of the "very fine gaps" in fibrous layer 11.⁹ In particular, Kyou is clear that the passage of steam through the cover is controlled by two layers, specifically, the air permeable sheet (13) and the fiber paper (11). To replace the substrate layer in Kyou with a substrate layer according to the presently claimed invention i.e., a biaxially oriented polymeric layer which includes perforations or incisions would have represented a significant departure from the teaching of Kyou. More specifically, Kyou teaches the skilled person that the lower layer (which, in use, is in contact with the food) should be selected so as to have an air permeability at least equal to that of the fiber paper layer (11) (which, in use, is the outermost layer). When describing the fiber paper layer (11) and the permeable layer (13), it is clear that Kyou uses a naturally porous material. Indeed, the skilled person would have understood that were it necessary to modify the material, this would introduce a further step into the process for making the cover and hence would, in itself, have been discouraged from taking this approach. Accordingly, there is no reason why the skilled person would have modified Kyou's teachings by using a biaxially oriented polymeric substrate layer having incisions or perforations therein, when Kyou clearly teaches that it is the nature of the material which is to be used as the fiber paper layer (11) which defines the nature of the material which is used to form air permeable substrate layer 13. Instead, when faced with the problem of providing greater control of the release of steam, the skilled person would have focused on changing the permeability of the fibrous paper layer rather than focusing on the substrate layer. Thus, it would not have been obvious to

⁹ Certified translation page 7 lines 5-14, page 8 lines 30-34, page 9 lines 1-6

provide a biaxially oriented substrate layer as recited in Applicants' claims, and the rejection should be withdrawn.

With respect to claims 3-5, the Office action states that it would have been obvious to choose the recited materials to achieve appropriate seal strength. Applicants respectfully note that Kyou's layer 12 has nothing to do with seal strength, only permeability, and thus this rationale for rejection has no support in Kyou. Thus, these claims should be allowed.

Applicants respectfully request reconsideration and allowance of the pending claims, and invite the Examiner to contact their representative, Frank Tise, if it appears that this may expedite examination.

Respectfully submitted,



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Enclosure: Certified true and correct translation of Kyou

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